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REMARKS

1. Status of Claims

Claims 3, 25 and 26 remain in the application and under consideration.

Claims 25 and 26 have been amended slightly to define the invention more clearly.

Claims 4 and 27 now are cancelled without prejudice.

2. Summary of Office Action

Claims 3, 25 and 26 were rejected under 35 USC 102(b) as being anticipated by Anderson et al. The Examiner correctly noted that the Anderson et al. reference discloses an endovascular stent/graft assembly comprising a stent with opposite first and second ends and a graft with opposite first and second ends. The Examiner then stated that the "first axial end of graft 52 is fixatedly connected with the second axial end of stent 58 for achieving a substantially end-to-end connection (see FIGS; see entire document)." The Examiner correctly stated that the Anderson et al. assembly "may include overlapping (see Figures 9, 10 and 12) and the use of adhesive." The Examiner then concluded that the

"end-to-end connection is also disclosed/described by Anderson et al. as an end-to-end connection without overlap (='butt joint': see column 11, lines 10-14). It should be noted that Merriam-Webster dictionary defines 'butt joint' as 'a joint made by fastening the parts together end-to-end without overlap and often with reinforcement'".

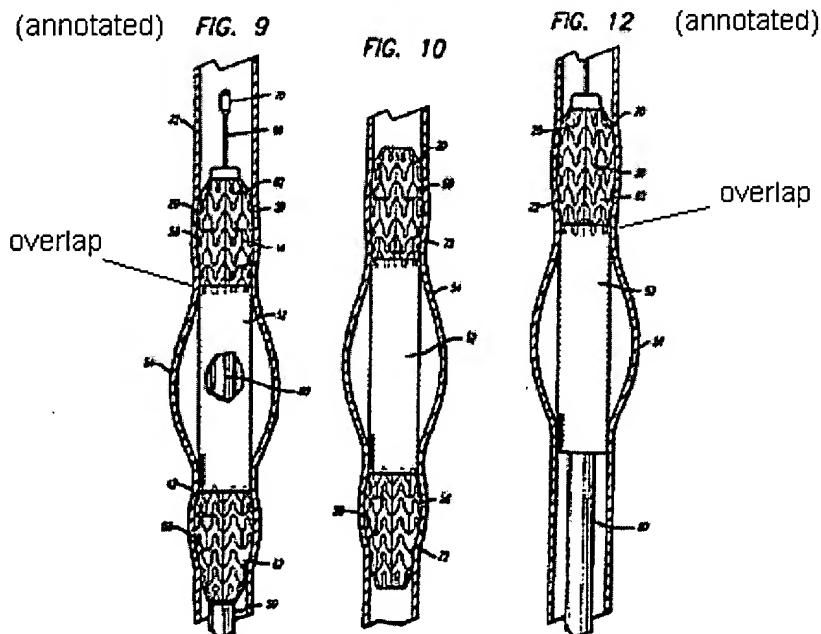
The Examiner further stated that the Anderson et al. reference discloses and describes a butt joint connection "as having all of the stent extending out of the graft (see column 11, lines 10-14)." The Examiner concluded that this "corroborates/validates the dictionary definition of 'butt joint'."

3. Response

The Examiner conclusions are traversed, with respect, for the reasons stated below.

3a. The Anderson Disclosure

At the outset, the last-quoted section from the Office Action omitted a very important word. Contrary to the statement in the Office Action, the section of Anderson et al. extending from lines 10-14 of column 11 does not describe the Anderson et al. butt joint as having "all of the stent extending out of the graft". Rather, the referenced section of Anderson et al. states that if the stent and graft are joined by a butt joint "then substantially all of the stent will extend out of the graft" (column 11, lines 13 and 14, emphasis added). The quoted section of Anderson et al. appears in a section of Anderson et al. that is describing embodiments of FIGS. 8-12 and is believed to accurately describe the views depicted in FIGS. 9, 10 and 12, as mentioned in the Office Action.



In particular, FIGS. 8-12 show a graft 52 and stents 56 and 58. These generally tubular members necessarily have opposed ends. The opposed ends of the graft 52 are telescoped over the respective opposed ends of the stents 56 and 58, as shown in the annotated copies above. This distinguishes from many stent/graft assemblies (e.g. FIG. 15 of Anderson et al.) where most or all of the stent is within the graft. The FIGS. 8-12 embodiments clearly show substantially all of the stent extending out of the graft. However, the FIGS. 8-12 embodiment also shows some overlap with part of the stent near one axial end being telescoped into the corresponding axial end of the graft.

3b. The Significance of the Overlap

The significance of this overlap was discussed at length during the interview. In particular, both counsel and the inventor explained that even the small overlap of the graft 52 onto the stent 58 of Anderson et al. would require the graft to be pleated or bunched over the collapsed stent for introduction into the blood vessel. The prior prosecution in this application explained that such an overlapped and pleated or bunched arrangement would require an introducer of 20 or 22 "French size". In contrast, an end-to-end connection with no overlap could utilize a 12 French introducer. These sizes, are shown below:



22 French



12 French

The prior prosecution and the matters discussed during the interview emphasize the very substantial difference between an incision for a 22 French introducer and a 12 French introducer, both intra-operatively and post-operatively. An incision for a 22 French introducer creates the potential for substantial blood loss during surgery,

requires sutures and requires a post operative stay sufficiently long to ensure that the sutured incision heals properly. An incision for a 12 French introducer produces much less blood loss during surgery and is likely to require a brief post-operative stay that was compared by the inventor to the very short post-operative stay associated with an outpatient dental office procedure. Additionally, many people, including most women and people with arteriosclerosis, have small blood vessels that cannot accommodate an introducer as large as 22 French. For these people, a surgeon must access the site of the aneurysm with an incision in the abdomen. A procedure of this type involves greater blood loss and longer hospitalization.

3c. Enablement

A rejection for anticipation under Section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference. In addition, the reference must be enabling. *In re Paulsen*, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994). The reference must be considered in its entirety and “must describe the applicant’s claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it.” *In re Spada*, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

Clearly, Anderson et al. is not “enabling” for any non-overlapping relationship between a stent and a graft, and nothing in the Anderson et al. reference indicates that Anderson et al. “had possession” of that aspect of applicant’s invention. Possession of that aspect of applicant’s invention would have required Anderson et al. to have at least shown such a connection without overlap. Furthermore, the interpretation asserted in the Office Action is inconsistent with Anderson’s use of

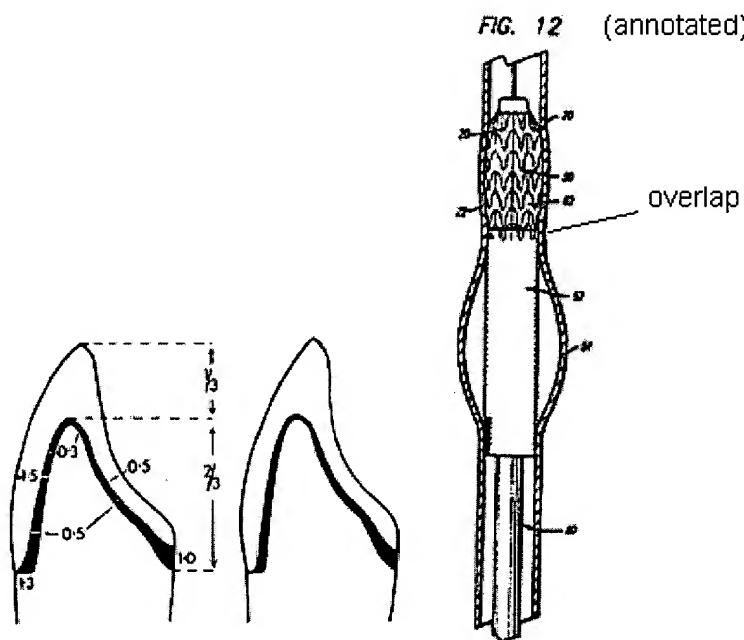
“substantially” in the above-quoted section of the Anderson et al. specification. Counsel and the applicant herein do not dispute that substantially all of the stent of the Anderson et al. “butt joint” extend out of the graft, but clearly part of the stent of the Anderson et al. “butt joint” extends into the graft to achieve the only substantially end-to-end connection disclosed in Anderson et al.

3d. What is a Butt Joint? - Medical Literature

The disagreement to date hinges largely on the Anderson et al. use of the term “butt joint” and the type of connection that is implied by that term. It continues to be the position of counsel and the inventor that the Anderson et al. use of “butt joint” is referring to the FIGS. 8-12 depiction where “substantially” all of the stent will extend out of the graft. It is the position of the Examiner, that the quoted section of the Anderson et al. reference is referring to something else, and the Examiner refers to Merriam-Webster in an effort to identify that something else.

During the course of the interview, Examiner Willse suggested that Examiner Blanco conduct additional searching to determine whether the relevant art can clarify the intended definition of “butt joint” as used by Anderson et al. It is not clear from the Office Action whether such additional searching was conducted. However, this amendment is accompanied by a Rule 132 Declaration referring to an on-line search conducted by the inventor herein. The search uncovered several “hits” on pubmed.com for the word “butt”. Several of these related to the surname “Butt”. Many other hits used “butt” as a colloquial reference to a cigarette or a colloquial reference to a buttocks. The only medical references to butt joint pertain to a dentistry technique for preparing a tooth so that a crown can be telescoped over the prepared tooth. The

inventor was able to access one of the dentistry publications uncovered in the pubmed.com search. The inventor also found a dentistry book that mentioned "butt joint". Copies of those documents are submitted concurrently with this Amendment and the Rule 132 Declaration as part of an Information Disclosure Statement. The butt joint in the dentistry literature shows a crown telescoped over a prepared tooth in a manner similar to the telescoping of the graft over the stent in FIGS. 8-12 of Anderson et al.



The inventor found no reference to "butt joint" in the endovascular stent/graft art. The dentistry literature certainly would not lead a person skilled in the endovascular stent/graft art from Anderson et al. to the claimed invention.

3e. What is a Butt Joint? Wood Working in Literature

The inventor herein owns a wooden boat and has some familiarity with wood working. "Butt joint" is a term of art in the wood working trade. It is certainly not clear that an endovascular surgeon would turn to the wood working literature for surgical techniques. However, the attached Information Disclosure Statement includes

a copy of an entire chapter from a book entitled The Complete Illustrated Guide to Joinery by Gary Rogowski. The Examiner will note that the chapter is entitled “Butt Joint” and describes with detailed text and photographs the various types of “butt joints” used in carpentry. Carpentry butt joints do connect an end of one member to an end of another member as stated in Merriam-Webster. However, the members extend at right angles to one another in all of the illustrated butt joints. The attached Information Disclosure Statement also includes a section from a book entitled Cabinetmaking and Millwork by John L. Feirer. These descriptions and illustrations of “butt joint” appear to conform to the description and illustrations of “butt joint” in the Rogowski book. The Feirer book also indicates that the word “butt” is used to describe certain types of edge joints where boards are connected side-to-side to build up larger surfaces for such things as the tops of tables and desks. Thus, the butt edge joint makes an object wider, not narrower. This reference to “butt” in wood working edge joint appears to be even further removed from the term “butt joint” used in Anderson et al.

3f. Dictionary Definitions

The attention of the Examiner is directed respectfully to Vanderlande Industry Nederland BV v. ITC, 70 USPQ 1696 (Fed. Cir. 2004). There Vanderlande turned to Merriam Webster’s Collegiate Dictionary in an effort to define the word “glide”. The Court of Appeals for the Federal Circuit concluded, however, that Vanderlande’s reliance on “a general-usage-dictionary definition is unpersuasive” Id. at 1703. The Court concluded that claims are to be construed from the vantage point of a person skilled in the relevant art. The Court explained at page 1704 that where evidence

“demonstrates that artisans would attach a special meaning to a claim term, or, as here, would attach no meaning at all to the claim term (independent of the specification), general-usage dictionaries are rendered irrelevant with respect to that term; a general-usage dictionary cannot overcome

credible art-specific evidence of the meaning or lack of meaning of a claim term".

The Court quoted from *Multiform Desicants, Inc. v. Medzim Ltd.* 45 USPQ 2d 1429 (Fed. Cir. 1998) where it was noted that "we have previously cautioned against the use of non-scientific dictionaries, 'lest dictionary definitions be converted into technical terms of art having legal, not linguistic significance'". The Court further noted that Vanderlande used an "extrapolation" of the dictionary definition and concluded that such a "syllogism cannot overcome the uncontested testimony regarding the lack of ordinary meaning of glide surface in the art." Still further, the Court concluded that Vanderlande's dictionary argument is "entirely eclipsed" by the rewritten description in the patent.

The Vanderlande case is very relevant to the issues presented here. The brief description of "butt joint" in the same general usage dictionary considered by Vanderlande does not overcome the lack of meaning of a claim term in the relevant art. As in Vanderlande, it is submitted that the Examiner has performed "an extrapolation" of the brief dictionary definition in an effort to have the dictionary definition fit to the claimed invention. Additionally, as in Vanderlande, the Examiner has ignored the specific "written description" in the Anderson et al. patent which "entirely eclipses" the Examiner's interpretation.

It is submitted that the Examiner considered the term "butt joint" in Anderson et al., turned to Merriam-Webster and drew a conclusion from the brief Merriam-Webster definition that was dictated by the Examiner's preconceived vision of a connection as gleaned from the applicant's disclosure. A very thorough investigation of the term "butt joint" might lead the skilled artisan to the Rogowski description where the axial end edge of the one member abuts the side edge of another member adjacent

its axial end. However, this is clearly different from the connection defined by the amended claims herein.

3g. Anderson et al. is unrelated to a Small Cross-Section

The Examiner stated that "Anderson et al. disclose in column 10, lines 2-5 and lines 8-10 the stent/graft assembly as having a small cross-section for ease of introducing into a blood vessel." **This interpretation of Anderson et al. is entirely incorrect.** The three sentences of Anderson et al. extending from lines 2-10 of column 10 read as follows:

"It is contemplated that this use of the stent could be accomplished with a wide variety of graft types including well known tube grafts and bifurcated grafts. Due principally to the ability of the stent of the invention to expand from a very small diameter to a much larger diameter without substantial shortening, a relatively short length can be used. The graft system is sized so that its cross-section substantially matches that of the healthy portion of the aorta."

The first sentence quoted above, extends from lines 2-5 and the third sentence extends from lines 8-10. The second sentence is provided for completeness. None of these sentences refer at all to a desire or ability to have a small cross section for ease of introducing into a blood vessel. The last of these quoted sentences merely states that the graft is "sized so that its cross section substantially matches that of the healthy portions of the aorta." This clearly refers to the cross sectional dimensions of the graft in its expanded condition and in situ. This has nothing to do with cross-sectional dimensions during introduction or any ability to achieve a small cross section during introduction. To the contrary, a skilled artisan would clearly understand that the structure defined by Anderson et al. in the above quoted section would lead to a relatively large cross section during introduction. The entire Anderson et al. disclosure

relates to a stent that will expand without shortening. The inverse of this requirement is a stent that collapses without lengthening. Thus, Anderson et al. has designed a stent that distinguishes from prior art stents that expand with shortening. The inverse operation performed by the prior art stent that expands with shortening would be a stent that elongates while collapsing. The prior art stent that elongates while collapsing clearly could achieve a smaller cross section for introduction. The problem with such a stent, however, is that the longitudinal dimensional changes that occur during expansion make it difficult for the surgeon to predict accurately where the stent will be positioned when it is expanded. The Anderson et al. stent that expands without elongation enables the surgeon to precisely position the stent in the aorta. However, this precise positioning of the stent developed by Anderson et al. is achieved at the expense of having a larger cross section during introduction. Thus, a person skilled in this art clearly would understand that the section of Anderson et al. extending from lines 2-10 of column 10 stands for exactly the opposite proposition than the proposition asserted in the Office Action.

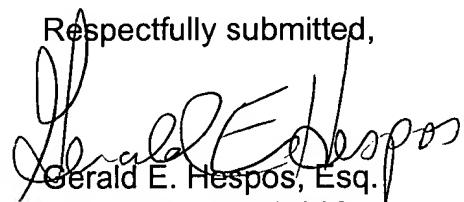
4. Conclusion

It is submitted, with respect, that the Examiner has effectively “boot strapped” the very brief reference to “butt joint” in Anderson et al. and the equally brief definition in Merriam-Webster into an interpretation of Anderson et al. that is based largely upon the disclosure gleaned by the Examiner from subject application. The above referenced search of the medical literature clearly does not support the Examiner’s interpretation of Anderson et al. and Merriam-Webster.

The applicant understands that the Examiner must give claims in a pending application their broadest reasonable interpretation. Accordingly, the two independent claims remaining in the application have been amended further so that even the broadest interpretation that could reasonably be given will distinguish over Anderson et al.

In view of the preceding amendments and remarks, and in view of the attached Declaration under Rule 132 and the newly cited references, it is submitted that the claims remaining in the application are patentable and should be allowed. The Examiner is urged to contact applicant's attorney at the number below to expedite the prosecution of this application.

Respectfully submitted,



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